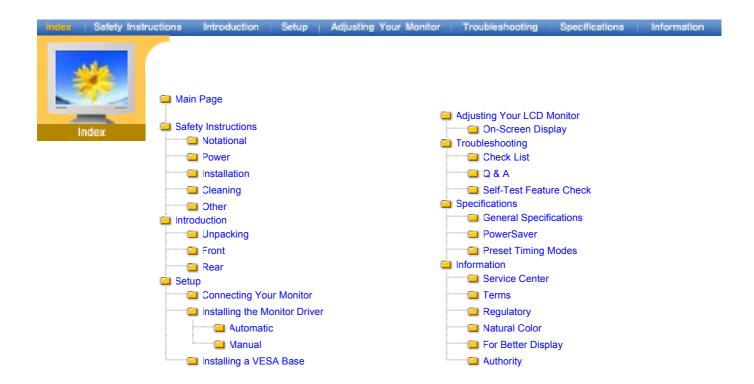


# SyncMaster Monitor







Safety Instruction

- Notational
- **▶** Power
- ► Installation
- Cleaning
- ► Other

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.



## Warning / Caution



Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

## **Notational Conventions**



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Grounding to prevent an electric shock



#### Sofety Instructi

- Notational
- Power
- Installation
- Cleaning
- ► Other



When not used for extended periods of time, set your PC to DPMS. If using a screen saver, set it to the active screen mode.



- Do not use a damaged or loose plug.
  - This may cause an electric shock or fire.



- Do not pull the plug out by the wire nor touch the plug with wet hands.
  - This may cause an electric shock or fire.



- Use only a properly grounded plug and receptacle.
  - An improper ground may cause electric shock or equipment damage.



- Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.
  - This may cause an electric shock or fire.



- Do not connect too many extension cords or plugs to an outlet.
  - This may cause a fire.



#### Sofety Instruction

- Notational
- Power
- Installation
- Cleaning
- ▶ Other



- Put your monitor in a location with low humidity and a minimum of dust.
  - An electric shock or fire could result inside the monitor.



- Do not drop the monitor when moving it.
  - This may cause damage to the product or human body.



- Place the monitor on a flat and stable surface.
  - The monitor can cause injury by falling.



- Set down the monitor carefully.
  - It could be damaged or broken.



- Do not place the monitor face down.
  - The TFT-LCD surface may be damaged.



- Installing a wall bracket must be done by a qualified professional.
  - Installation by unqualified personnel may result in injury.
  - Always use the mounting device specified in the owner's manual.



- Leave a space for ventilation between the product and the wall.
  - Poor ventilation may cause the interior temperature to rise and lead to a fire.



#### Sofety instruction

- Notational
- ► Power
- ► Installation
- Cleaning
- ► Other



When cleaning the monitor case or the surface of the TFT-LCD, wipe with a slightly moistened, soft fabric.



- Do not spray water or detergent directly on the monitor.
  - This may cause damage, electric shock or a fire.



Use the recommended detergent with a smooth cloth.



- If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.
  - A dirty connector can cause an electric shock or fire.



- Contact a Service Center or Customer Center for interior cleaning once a year.
  - Keep the product's interior clean. Dust which has accumulated in the interior over an extended period of time may cause malfunction or a fire.



- Sofety Instruct
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- Do not remove cover (or back). No user serviceable parts inside.
  - · This may cause an electric shock or a fire.
  - Refer servicing to qualified service personnel.



- If your monitor does not operate normally in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service.
  - . This may cause an electric shock or fire.



- Be careful not to let water drip into the monitor or expose the monitor to moisture.
  - This may cause malfunction, an electric shock or a fire.
  - Especially avoid operating the monitor near water or outdoors where it could be exposed to snow or rain.



- If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord.
  - The monitor may malfunction, causing an electric shock or a fire.
  - Then contact the Service Center.



- Keep the power off when there is thunder and lightening outside, or let the monitor remain unused for an extended period of time.
  - The monitor may malfunction, causing an electric shock or a fire.



- Do not try to move the monitor by pulling on the wire or the signal cable.
  - This may cause a breakdown, electric shock or a fire due to damage to the cable.



- Do not move the monitor right or left by pulling only the wire or the signal cable
  - This may cause a breakdown, electric shock or a fire due to damage to the cable.



- Do not cover the vents on the monitor cabinet.
  - Bad ventilation may cause a breakdown or fire.



- Do not place any heavy objects on the monitor.
  - This may cause malfunction, an electric shock or a fire.



- SOLETA TUBLICA
- Notational
- Power
- Installation
- Cleaning
- Other



- Do not place water containers, chemical products or small metal objects on the monitor.
  - This may cause malfunction, an electric shock or a fire.
  - If a foreign substance enters the monitor, unplug the power cord and contact the Service Center.



Do not use or store inflammable substances near the monitor.

• This may cause an explosion or fire.



- Never insert anything metallic into the monitor openings.
  - This may cause an electric shock, fire or injury.



- Do not insert metal objects such as utensils, wire or drill bits, or things that catch fire easily, such as pieces of paper or matches, into the vents or the headphone or A/V ports on the monitor.
  - This may cause malfunction, an electric shock or a fire.
  - Always contact the Service Center if foreign substances/objects enter into the monitor



- If you view a fixed screen for an extended period of time, residual image or blurriness may appear.
  - Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.



- Be careful when adjusting the stand angle.
  - Applying too much force may cause the monitor topple over or fall, resulting in injury.
  - Your hand or finger(s) may get caught between the monitor and the stand, causing injury.



- Adjust the resolution and frequency to the levels appropriate for the model.
  - Inappropriate resolution may cause undesirable picture quality.

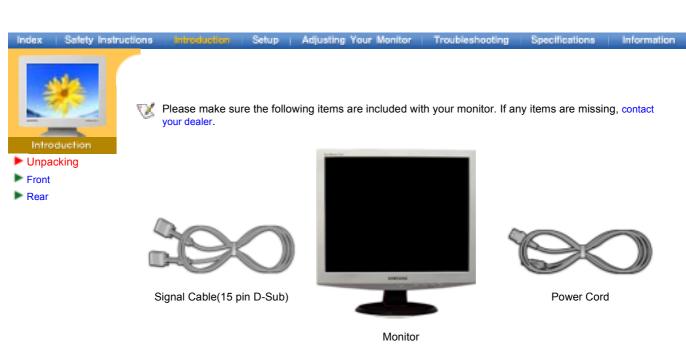
17 inch - 1280 X 1024



- Keep a proper distance between your eyes and the monitor screen.
  - Sitting too close to the monitor on a continuous basis may damage eyesight.



- When moving the monitor, turn the power switch off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connecting to other devices, are disconnected before moving the monitor.
  - Failure to disconnect a cable may damage it and lead to a fire or an electric shock.









Warranty Card (Not available in all locations)



Quick Setup Guide

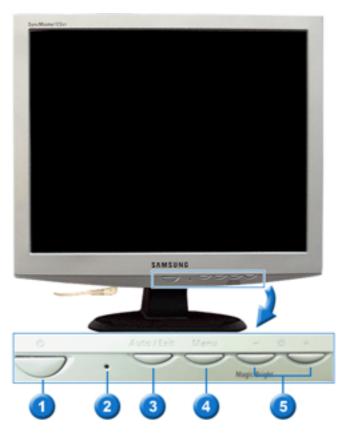
ndex | Safety Instructions | Introduction | Setup | Adjusting Your Monitor | Troubleshooting | Specifications | Information



Unpacking

Front

Rear



**1. Power button** Use this button to turn the monitor on and off.

**2. Power indicator** This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.

3. Auto/Exit button Use this button to auto adjustment direct access./Use this button to Exit the

active menu or the OSD.

**4. Menu button** Use this button to open the OSD and activate a highlighted menu item.

**5. Adjust buttons** These buttons allow you to highlight and adjust items in the menu.

**Note**: See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.





Unpacking

► Front

Rear



## (The configuration at the back of the monitor may vary from product to product.)

1. Power port Connect the power cord for your monitor to the power port on the back of the

monitor.

2. Signal port Connect the signal cable to the 15-pin, D-sub connector on the back of your

monitor.

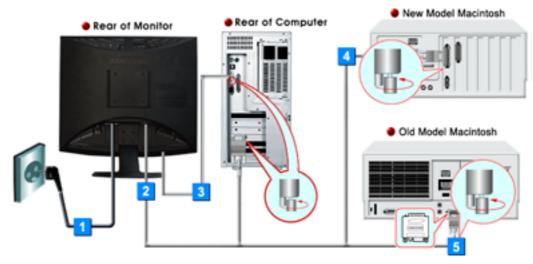
3. Touchscreen cable Connect the touchscreen cable to an available serial communication (COM)

port on the back of your computer.

**Note:** See Connecting Your Monitor for further information regarding cable connections.



- Connecting Your Monitor
- Installing the Monitor Driver
- Installing a VESA base



- Connect the power cord for your monitor to the power port on the back of the monitor. Plug the power cord for the monitor into a nearby outlet.
- 2. Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.
- Connect the touchscreen cable to an available serial communication (COM) port on the back of your computer.
  - If the COM port has a 9-pin connector, attach the touchscreen cable directly to the port.
  - If the COM port has a 25-pin connector, first attach a 9-pin to 25-pin adapter (not included) to the end of the touchscreen cable, and then attach the cable to the port.
- 4. Connect the monitor to the Macintosh computer using the D-SUB connection cable.
- 5. In the case of an old model Macintosh, you need to connect the monitor using a special Mac adaptor.
- 6. Turn on your computer and monitor. If your monitor displays an image, installation is complete.





Connecting Your

- Monitor
  Installing the
  Monitor Driver
- Installing a VESA base

Automatic

Manual

X

When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions as appropriate for the operating system you have.

Prepare a blank disk and download the driver program file at the Internet web site shown here.

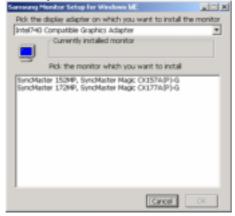
Internet web site: http://www.samsung-monitor.com/ (Worldwide)
 http://www.samsungusa.com/monitor/ (USA)
 http://www.sec.co.kr/monitor/ (Korea)
 http://www.samsungmonitor.com.cn/ (China)

Windows ME | Windows XP/2000

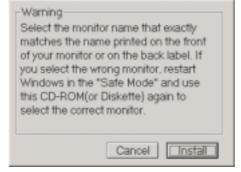
#### 1. Windows ME

Refer to "Installing the Monitor Driver and User Manual" CD-ROM supplied with the monitor. When inserted into the computer CD drive, the CD-ROM boots up automatically. If it fails to boot up automatically, click monsetup.exe twice in the CD-ROM drive folder of Windows Explorer.

- 1. Insert CD into the CD-ROM driver.
- 2. Click "Windows ME Driver"
- 3. Choose your monitor model in the model list, then click the "OK" button.



4. Click the "Install" button in the "Warning" window.



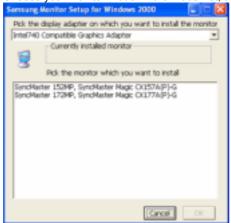
5. Monitor driver installation is completed.



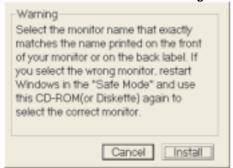
- Connecting Your Monitor
- Installing the Monitor Driver
- Installing a VESA base

#### 2. Windows XP/2000

- Refer to "Installing the Monitor Driver and User Manual" CD-ROM supplied with the monitor. When inserted into the computer CD drive, the CD-ROM boots up automatically. If it fails to boot up automatically, click monsetup.exe twice in the CD-ROM drive folder of Windows Explorer.
- 1. Insert CD into the CD-ROM driver.
- 2. Click "Windows XP/2000 Driver".
- 3. Choose your monitor model in the model list, then click the "OK" button.



4. Click the "Install" button in the "Warning" window.



If you can see following Message window, then click the "Continue Anyway" button. Then click "OK" button.



This monitor driver is under a certified MS logo. This installation will not damage your system. The certified driver will be posted on Samsung Monitor Homepage <a href="http://www.samsung-monitor.com/">http://www.samsung-monitor.com/</a>

6. Monitor driver installation is completed.



- Connecting Your Monitor
- Installing the Monitor Driver
- Installing a VESA base

Automatic

Manual

When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions as appropriate for the operating system you have.

Prepare a blank disk and download the driver program file at the Internet web site shown here.

Internet web site: http://www.samsung-monitor.com/ (Worldwide)
 http://www.samsungusa.com/monitor/ (USA)
 http://www.sec.co.kr/monitor/ (Korea)
 http://www.samsungmonitor.com.cn/ (China)

To install the monitor driver manually, follow the procedures explained below after checking your operating system.

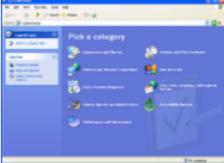
Windows XP | Windows 2000 | Windows Me | Windows NT | Linux

## 1. Microsoft<sup>®</sup> Windows<sup>®</sup> XP Operating System

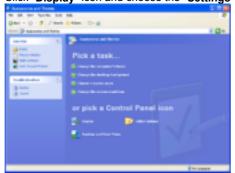
1. Insert CD into the CD-ROM driver.

2. Click "Start" - "Control Panel" then click the "Appearance and Themes" Icon.



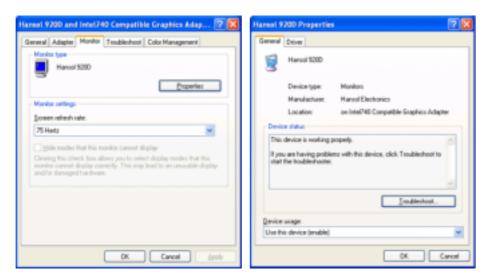


3. Click "Display" icon and choose the "Settings" tab then click "Advanced.."

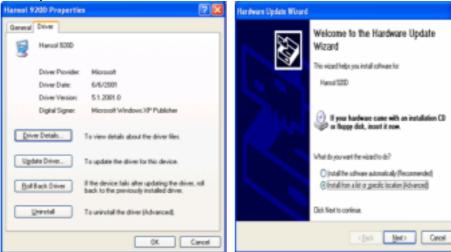




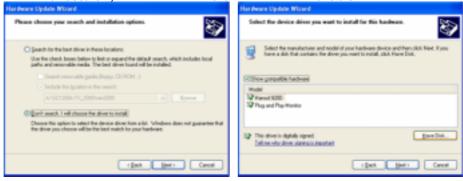
4. Click the "Properties" button on the "Monitor" tab and select "Driver" tab.



5. Click "Update Driver.." and select "Install from a list or.." then click "Next" button.



6. Select "Don't search, I will.." then click "Next" and then click "Have disk".



7. Click the "Browse" button then choose A:(D:\Driver)and choose your monitor model in the model list and click the "Next" button.



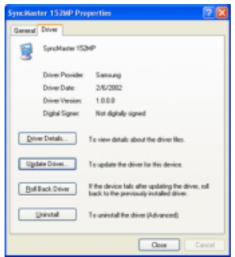
8. If you can see following "Message" window, then click the "Continue Anyway" button. Then click "OK" button.



This monitor driver is under a certified MS logo. This installation will not damage your system. The certified driver will be posted on Samsung Monitor Homepage <a href="http://www.samsung-monitor.com/">http://www.samsung-monitor.com/</a>

9. Click the "Close" button then click "OK" button continually.







10. Monitor driver installation is completed.

## 2. $Microsoft^{\text{@}}$ Windows $^{\text{@}}$ 2000 Operating System

- \* When you can see "Digital Signature Not Found" on your monitor, follow these steps.
  - 1. Choose "OK" button on the "Insert disk" window.
  - 2. Click the "Browse" button on the "File Needed" window.
  - 3. Choose A:(D:\Driver)then click the "Open" button and then click "OK" button.

#### \* How to install

- 1. Click "Start", "Setting", "Control Panel".
- 2. Double click the "Display" Icon.
- 3. Choose the "Settings" tab and then click "Advanced...".
- 4. Choose "Monitor".
  - Case 1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation.
  - Case 2: If the "Properties" button is active, click the "Properties" button then follow next steps continually.

- 5. Click "Driver" and then click on "Update Driver.." then click on the "Next" button.
- 6. Choose "Display a list of the known drivers for this device so that I can choose a specific driver" then click "Next" and then click "Have disk".
- 7. Click the "Browse" button then choose A:(D:\Driver).
- 8. Click the "Open" button, then click "OK" button.
- 9. Choose your monitor model and click the "Next" button then click "Next" button.
- 10. Click the "Finish" button then the "Close" button.

If you can see the "Digital Signature Not Found" window then click the "Yes"button. And click the "Finish" button then the "Close" button.

## 3. Microsoft® Windows® Millennium Operating System

- Click "Start", "Setting", "Control Panel".
   Double click "Display" icon.
   Select the "Settings" tab and click "Advanced Properties" button.
- Select the "Monitor" tab.
  Click the "Change" button in the "Monitor Type" area.
- 6. Choose "Specify the location of the driver".
- 7. Choose "Display a list of all the driver in a specific location.." then click "Next" button.
- 8. Click the "Have Disk" button
- 9. Specify A:(D:\Driver)then click "OK" button.
- 10. Select "Show all devices" and choose the monitor that corresponds to the one you connected to your computer and click "NEXT". Click "NEXT" again and "FINISH" to complete installation.
- 11. Continue choosing "CLOSE" button and "OK" button until you close the Display Properties dialogue box.
  - (You may get a screen with a warning or other message, just click the appropriate option for your monitor.)

## 4. Microsoft<sup>®</sup> Windows<sup>®</sup> NT 4.0 Operating System

- 1. Click Start, Settings, Control Panel, and then double-click Display icon.
- 2. In Display Registration Information window, click Settings Tab and then click All Display Modes.
- Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then click OK.
- 4. Click Apply button if you see the screen working normally after clicking Test. If the screen is not normal, change to a different mode (lower mode of resolution, colors or frequency).



If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Display Modes in the user guide.

## 5. Linux Operating System



To execute X-Window, you need to make the X86Config file, which is a type of system setting file.

- Press Enter at the first and the second screen after executing the X86Config file.
- The third screen is for setting your mouse.
- Set a mouse for your computer.
- The next screen is for selecting a keyboard.
- Set a Keyboard for your computer.
- 6. The next screen is for **setting your monitor**.
- First of all, set a horizontal frequency for your monitor. (You can enter the frequency directly.)
- Set a **vertical frequency** for your monitor. (You can enter the frequency directly.)
- 9. Enter the model name of your monitor. This information will not affect the actual execution of X-Window.
- 10. You have finished setting up your monitor.
  - **Execute** X-Window after setting other requested hardware.

Removing the base | Attaching a base



#### Setup

- Connecting Your Monitor
- Installing the Monitor Driver
- Installing a VESA base

## Removing the base



- 1. Turn off your monitor and unplug its power cord.
- 2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
- 3. Remove the four screws and then remove the Stand from the LCD monitor.

#### Attaching a base

NOTE: This monitor accepts a 75mm x 75mm VESA-compliant mounting interface pad.



- 1. Rear cover mounting pad
- 2. Mounting interface pad

Align the Mounting Interface Pad with the holes in the Rear Cover Mounting Pad and secure it with the four screws that came with the arm-type base, wall mount hanger or other base.



#### Adjusting Your LCD Monitor

Simply move your mouse over each topic to view information about the on-screen menu.

## Adjustment Menu

- BrightnessContrast
- Image Lock
- Fine
- Coarse
- Position
- H-Position
- V-Position
- Reset
- Geometry Reset - Color Reset
- OSD Lock/Unlock
- 1. Auto/Exit Button
- 2. Menu Button
- 3. Adjust Button
- a. MagicBright Button

- Color Temperature
   Color Control
- Language
- Halftone
- Menu Position
- H-Position
- V-Position
- Menu Display Time
- Display Mode
- Auto MagicBright

Check List

► Q & A

Self-Test Feature Check



Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, the phone number on the Information section or contact your dealer

Symptom	Check List	Solutions		
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.		
	Can you see "No Connection, Check Signal Cable" on the screen?	Check the signal cable connection.		
	If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. (Refer to the Preset Display Modes)		
		Note: If the initial screen (the login screen) does not appear, contact a service center or your dealer.		
	Can you see "Video mode not supported" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can properly handle.		
		Adjust the maximum resolution and frequency that the monitor can properly handle.		
	There is no image on the screen.  Is the power indicator on the	The monitor is in PowerSaver mode.		
	monitor blinking at 1 second intervals?	Press a key on the keyboard or move the mouse to activate the monitor and restore the image on the screen.		
I cannot see the On Screen Display.	Have you locked the <b>On Screen Display (OSD)</b> Menu to prevent changes?	Unlock the OSD by pressing the MENU button for at least 5 seconds.		
The screen shows strange colors or just	Is the screen displaying only one color as if looking at the screen	Check the signal cable connection.		
black and white.	through a cellophane paper?	Make sure the video card is fully inserted in it's slot.		
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.		
	Has the video card been set properly?	Set the video card by referring to the video card manual.		
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.		
anduluitou.	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to the Preset Display Modes).		
	The screen can be unbalanced due to the cycle of the video card signals.  Readjust Position by referring to the OSD.			

| Safety Instructions | Introduction | Setup | Adjusting Your Monitor | Troubleshooting | Specifications | Information



- Check List
- ► Q & A
- ▶ Self-Test Feature Check

The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Display Modes).
LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Display Modes.
		(The maximum frequency per resolution may differ from product to product.)
There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.	Have the Windows colors been set properly?	For Windows ME/XP/2000: Set the colors properly at the Control Panel, Display, Settings.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
There is a message that reads "Unrecognized	Have you installed the monitor driver?	Install the monitor driver according to the Driver Installation Instructions.
monitor, Plug & Play (VESA DDC) monitor found".	See the video card manual to see if the Plug & Play (VESA DDC) function can be supported.	Install the monitor driver according to the Driver Installation Instructions.

#### Check the following items if there is trouble with the monitor.

- 1. Check if the power cord and the cable are properly connected to the computer.
- 2. Check if the computer beeps more than 3 times when booting. (If it does, request an after-service for the main board of the computer.)
- 3. If you installed a new video card or if you assembled the PC, check if the installed the adapter(video) driver and the monitor driver.
- 4. Check if the scanning ratio of the video screen is set at 75Hz or 85Hz.
- (Do not exceed 60Hz when using the maximum resolution.)
  5. If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "Control Panel, System, Device Administrator" and then reboot the computer to reinstall the adapter (video) driver.

Note: If problems repeatedly occur, contact an authorized service center.



► Check List

► Q & A

Self-Test Feature Check

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card.
	Note that video card support can vary, depending on the version of the driver used.  (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	Windows ME/XP/2000: Set the resolution at the <b>Control Panel</b> , <b>Display</b> , <b>Settings</b> .
	* Contact the video card manufacturer for details.
How can I set the Power Saving function?	Windows ME/XP/2000: Set the function at BIOS-SETUP of the computer or the screen saver. (Refer to Windows/Computer Manual).
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water.
	Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.



Check List

► Q & A

Self-Test Feature Check Self-Test Feature Check | Warning Messages | Environment | Useful Tips

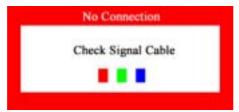
Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

Self-Test Feature Check

- 1. Turn off both your computer and the monitor.
- 2. Unplug the video cable from the back of the computer.
- 3. Turn on the monitor.

If the monitor is functioning properly, you will see a box with a border and text inside as shown in the following illustration:

The three boxes inside the border are red, green and blue.



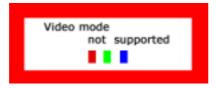
Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

## Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.



## Environment

The location and the position of the monitor may influence the quality and other features of the monitor.

- 1. If there are any woofer speakers near the monitor, unplug and relocate the woofer to another room.
- 2. Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.



- Check List
- ► Q & A
- ► Self-Test Feature Check

## Useful Tips

• A monitor recreates visual signals received from the PC. Therefore, if there is trouble with the PC or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact a service center or your dealer.

## • Judging the monitor's working condition

If there is no image on the screen or an "Video mode not supported" message comes up, disconnect the cable from the computer while the monitor is still powered on.

- o If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.

  o In this case, check the computer for trouble.

Index | Safety Instructions | Introduction | Setup | Adjusting Your Monitor | Troubleshooting | Specifications | Information

- General
- PowerSaver
- **Preset Timing** Modes

General	
Model Name	SyncMaster 173VT
LCD Panel	
Size	17.0 inch diagonal
Display area	337.92 (H) x 270.336 (V)
Pixel Pitch	0.264 (H) x 0.264 (V)
Туре	a-si TFT active matrix
Viewing Angle	140(H) / 120(V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277	
Resolution	
Optimum resolution	1280 x 1024@60Hz
Maximum resolution	1280 x 1024@75Hz

## Input Signal, Terminated

RGB Analog 0.7 Vpp positive at 75 ohms Separate H/V sync, Composite, TTL level positive or negative

## Maximum Pixel Clock

135 MHz

#### **Power Supply**

AC 90 ~ 264 VAC rms, 60/50 Hz ± 3Hz

#### Signal Cable

15pin-to-15pin D-sub cable, detachable

## **Power Consumption**

Less than 45W

## Dimensions (WxDxH) / Weight

384.6 X 66.7 X 338.0 mm (Without stand) 384.6 X 201.0 X 392.8 mm / 6.2kg (With basic stand)

#### **VESA Mounting Interface**

75mm x 75mm (for use with Specialty(Arm) Mounting hardware.)

#### **Environmental considerations** Temperature: $50^{\circ}F \sim 104^{\circ}F(10^{\circ}C \sim 40^{\circ}C)$ Operating Humidity: 10% ~ 80%, non-condensing Temperature: -4°F ~113°F (-20°C ~ 45°C) Storage Humidity: 5% ~ 95%, non-condensing

## **Plug and Play Capability**

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

#### **Dot Acceptable**

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without

• For example, the no. of TFT LCD pixels that is contained in this product are 3,932,160.

Note: Design and specifications are subject to change without prior notice.



- General
- ► PowerSaver
- Preset Timing Modes



This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA / ENERGY 2000	Power off
Power Indicator	Green	Green Blinking	Black
Power Consumption	Less than 45W	Less than 3W	Less than 1W (110 Vac)



This monitor is EPA ENERGY STAR® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality.

As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.



- General
- PowerSaver
- **Preset Timing** Modes



If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

#### **Preset Timing Modes**

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.086	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+,-/+,-
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	135.00	+/+
SUN, 1280 x 1024	81.129	76.106	135.00	-/-



## **Horizontal Frequency**

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

#### **Vertical Frequency**

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz



## Service Center

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- Natural Color
- For Better Display
- Authority

#### AUSTRALIA:

Samsung Electronics Australia Pty Ltd. Customer Response Centre 7 Parkview Drive, Homebush Bay NSW 2127

Tel: 1300 362 603 http://www.samsung.com.au/

#### BRAZIL :

Samsung Eletronica da Amazonia Ltda. R. Prof. Manoelito de Ornellas, 303, Terro B Chacara Sto. Antonio, CEP: 04719-040 Sao Paulo, SP

SAC: 0800 124 421 http://www.samsung.com.br/

#### CANADA:

Samsung Electronics Canada Inc. Samsung Customer Care 7037 Financial Drive Mississauga, Ontario L5N 6R3 1-800-SAMSUNG (1-800-726-7864) http://www.samsung.ca/

#### CHILE:

SONDA S.A.

Teatinos 550, Santiago Centro, Santiago, Chile Fono: 56-2-5605000 Fax: 56-2-5605353 56-2-800200211

http://www.sonda.com/ http://www.samsung.cl/

#### COLOMBIA :

Samsung Electronics Colombia Cra 9 No 99A-02 Of. 106 Bogota, Colombia Tel.: 9-800-112-112 Fax: (571) 618 - 2068

http://www.samsung-latin.com/ e-mail: soporte@samsung-latin.com

#### ESPAÑA:

Samsung Electronics Comercial Iberica, S.A. Ciencies, 55-65 (Poligono Pedrosa) 08908 Hospitalet de Llobregat (Barcelona)

Tel.: (93) 261 67 00 Fax.: (93) 261 67 50 http://samsung.es/

#### FRANCE:

SAMSUNG ELECTRONICS FRANCE Service Paris Nord 2

66 rue des Vanesses BP 50116 Villepinte 95950 Roissy CDG Cedex Tel: 08 25 08 65 65 Fax: 01 48 63 06 38

http://www.samsungservices.com/

#### GERMANY:

TELEPLAN Rhein-Main GmbH Feldstr. 16 64331 Weiterstadt T. 06151/957-1306 F. 06151/957-1732 \* EURO 0.12/Min http://www.samsung.de/

## HUNGARY:

Samsung Electronics Magyar Rt. 1039, Budapest, Lehel u. 15-17. Tel: 36 1 453 1100

Fax: 36 1 453 1101 http://www.samsung.hu/



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#### ITALY:

Samsung Electronics Italia S.p.a. Via C. Donat Cattin, 5 20063 Cernusco s/Naviglio (MI) Servizio Clienti: 199.153.153 http://www.samsung-italia.com/

#### MEXICO:

SAMSUNG ELECTRONICS MEXICO. S.A. DE C.V. Saturno NO.44, Col. Nueva Industrial Vallejo Gustavo A.Madero C.P.07700, Mexico D.F. Mexico TEL. 52-55-5747-5100 Fax. 52-55-47 52 02

RFC: SEM950215S98 http://www.samsung.com.mx/

#### NETHERLANDS/BELGIUM/LUXEMBOURG :

Samsung Electronics Benelux B. V. Fleminglaan 12 2289 CP Rijiswijk, NEDERLANDS Service and informatielijn;

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#### PERU

Servicio Integral Samsung Av.Argentina 1790 Lima1. Peru Tel: 51-1-336-8686 Fax: 51-1-336-8551 http://www.samsungperu.com/

#### PORTUGAL:

SAMSUNG ELECTRONICA PORTUGUESA S.A. Rua Mário Dioniso, Nº2 - 1º Drt. 2795-140 LINDA-A-VELHA Tel. 214 148 114/100 Fax. 214 148 133/128 Free Line 800 220 120 http://www.samsung.pt/

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Tel: 0027-11-549-1621 Fax: 0027-11-549-1629 http://www.samsung.co.za/

#### SWEDEN/DENMARK/NORWAY/FINLAND:

Samsung Electronics AB Box 713 S-194 27 UPPLANDS VÄSBY SVERIGE

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### THAILAND :

HAI SAMSUNG SERVICE CENTER MPA COMPLEX BUILDING, 1st-2nd Floor 175 SOI SUEKSA VIDHAYA SATHON SOI 12 SILOM ROAD ,SILOM, BANGRAK BANGKOK 10500

TEL: 0-2635-2567 FAX: 0-2635-2556

http://www.samsung.com.ua/

#### UKRAINE

SAMSUNG ELECTRONICS REPRESENTATIVE OFFICE IN UKRAINE 4 Glybochitska str.
Kiev, Ukraine
Tel. 8-044-4906878
Fax 8-044-4906887
Toll-free 8-800-502-0000



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U.S.A.:

Samsung Electronics America Service Division 400 Valley Road, Suite 201 Mount Arlington, NJ 07856 1-800-SAMSUNG (1-800-726-7864)

http://samsungusa.com

IMPORTADO POR: SAMSUNG ELECTRONICS MEXICO. S.A. DE C.V.

Saturno NO.44, Col. Nueva Industrial Vallejo Gustavo A.Madero C.P.07700, Mexico D.F. Mexico TEL. 52-55-5747-5100

EXPORTADO POR: Samsung Electronics CO.,LTD.

416, Mae tan-3dong, Yeongtong-gu, Suwon City, Kyoungki-Do Korea



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#### Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

#### Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. In this case, flickering of the screen can be detected. To avoid this problem, there is a Flicker-free Mode using a vertical frequency over 70 Hz.

#### Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

#### Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

#### Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

#### Resolution

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1280 X 1280, this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1280 vertical lines (vertical resolution).



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MPR II Compliance | European Notice (Europe only) | PCT Notice | VCCI | TCO'99-Ecological requirements for personal computers (TCO'99 applied model only) TCO'03-Ecological requirements for personal computers (TCO'03 applied model only) TCO'03 Recycling Information (TCO'03 applied model only)

#### MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

### European Notice (Europe only)

Products with the CE marking comply with the EMC Directive(89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022:1998+A1:2000 Radio Frequency Interference
- EN55024:1998 Electromagnetic Immunity
- EN55013:1990+A12:1994+A13:1996+A14:1999 Radio Frequency Interference
- EN55020:1994+A11:1996+A12/A13/A14:1999 Electromagnetic Immunity
- EN61000-3-2:1995+A1/A2:1998 Power Line Harmonics
- EN61000-3-3:1995 Voltage Fluctuations
- EN60065:1997 or EN60950:1998 Product Safety

#### PCT Notice



## VCCI

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

### TCO'99-Ecological requirements for personal computers (TCO'99 applied model only)



#### Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

This product meets the requirements for the TCO'99 scheme which provides for an international environmental and quality labelling labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO(The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen(The Swedish Society for Nature Conservation), Statens Energimyndighet(The Swedish National Energy Administration) and SEMKO AB.

The requirements cover a wide range of issuse: environment, ergonomics, usability, reduction of electric and magnetic fields, energy consumption and electrical safety.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

#### What does labelling involve?

The environmental demands has been developed by Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation). These demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs(freons)and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

## **TCO Development**

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: http://www.tco-info.com/

### **Environmental requirements**

#### Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

#### Cadmium\*\*

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

#### Mercury\*\*

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as today there is no commercially available alternative. TCO aims on removing this exception when a Mercury free alternative is available.

## CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

#### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

<sup>\*</sup> Bio-accumulative is defined as substances which accumulate within living organisms.

<sup>\*\*</sup> Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

#### ■ TCO'03-Ecological requirements for personal computers (TCO'03 applied model only)



#### Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

#### **Ergonomics**

Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

#### Energy

- Energy-saving mode after a certain time beneficial both for the user and the environment
- Electrical safety

#### **Emissions**

- · Electromagnetic fields
- Noise emissions

#### **Ecology**

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 000
- · Restrictions on
- o chlorinated and brominated flame retardants and polymers
- o heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in cooperation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, Please visit www.tcodevelopment.com

#### **■ TCO'03 Recycling Information (TCO'03 applied model only)**

For recycling information for TCO'03 certified monitors, for the residents in the following countries, please contact the company corresponding to your region of residence. For those who reside in other countries, please contact a nearest local Samsung dealer for recycling information for the products to be treated in environmentally acceptable way.

	[U.S.A. Residents Only]	[European Residents Only]		
	U.S.A.	SWEDEN	NORWAY	GERMANY
COMPANY	Solid Waste Transfer & Recycling Inc	ELKRETSEN	Elektronikkretur AS	vfw AG
ADDRESS	442 Frelinghuysen Ave Newark, NJ 07114	ELKRETSEN Box 1357, 111 83 Stockholm Barnhusgatan 3, 4 tr.	6454 Etterstad 0602 Osio	Max Plank Strasse 42 50858 Collogne Germany

TELEPHONE	973-565-0181	08-545 212 90	23 06 07 40	49 0 2234 9587 - 0
FAX	Fax: 973-565-9485	08-545 212 99	23 06 07 41	
E-MAIL	none	info@el-kretsen.se	adm@elektronikkretur.no	vfw.info@vfw- ag.de
				ag.ue



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#### Natural Color Software Program



One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.

The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI). This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images.

For more information, refer to Help (F1) in the software program.

#### How to install the Natural Color software

Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program installation will be executed. Click Natural Color on the initial screen to install the Natural Color software. To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the [Start] button of Windows and then select [Execute].

Enter D:\color\eng\setup.exe and then press the <Entrer> key.

(If the drive where the CD is inserted is not D:\, enter the applicable drive.)

## How to delete the Natural Color software program

Select [Setting]/[Control Panel] on the [Start] menu and then double-click [Add/Delete a program]. Select Natural Color from the list and then click the [Add/Delete] button.



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#### For Better Display

- Adjust computer resolution and screen injection rate (refresh rate) in control panel of computer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
  - o Resolution: 1280 x 1024
  - o Vertical frequency (refresh rate): 60 Hz
- TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.
  - o For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.
- 3. When you clean the monitor and the panel outside, please apply the recommended small amount of cleaner by using soft and dry cloth and polish it. Let LCD area not to be forced but to be scrubbed out softly. If excessive force is applied, you can have a stain on it.
- 4. If you are not satisfied with the quality of picture, you can get better quality of picture by executing "auto adjustment function" in display screen that is appeared as window termination button is pressed. If there's still noise after automatic adjustment, use FINE/COARSE adjustment function.
- 5. If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.
- 6. Do not display a still image( such as on a video game or when hooking up a DVD to this LCD\_TV ) on the Color TFT-LCD ( Thin Film Transister Liquid Crystal Display) panel for a long time as it can cause screen image retention. This image retention is also known as " screen burn". To avoid such image retention, reduce the degree of brightness and contrast of this screen when displaying a still image.



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